

CUSTOMER NO.: 24498
Ser. No.10/520,721
Office Action dated: 03/17/08
Response dated: 08/11/08

PATENT
PF020085

Amendments to the Claims

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This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims

1. (Currently Amended) VHF adapter for cable network, of the type comprising a first down conversion chain and a second up conversion chain, wherein the first chain comprises a first mixer followed by a second mixer and the second chain a third mixer followed by a fourth and by a fifth mixer, and wherein all the local frequencies necessary for these five mixers are obtained from a very stable single reference oscillator driving a harmonics generator with a first very narrow filter and driving an agile frequency synthesizer.
2. (Currently Amended) Adapter according to Claim 1, wherein the ~~single-reference oscillator drives a~~ harmonics generator is inserted into a phase loop dielectric resonator oscillator using an SPD system to obtain on the one hand after multiplication by two a first local frequency energizing the first and fifth mixers, and on the other hand with a first very narrow filter a second local frequency for energizing the second and the third mixers.
3. (Currently Amended) Adapter according to Claim 2, wherein the ~~single-reference oscillator furthermore drives an~~ agile frequency synthesizer is controlled by a bus so as to obtain variable frequencies for energizing the fourth mixer; and wherein a second very narrow filter is placed between the output of the third mixer and an input of the fourth mixer so that, the intermediate frequency for energizing the third mixer being a very low frequency pure frequency, the signal delivered by this third mixer can be filtered by the second very narrow filter which energetically rejects the second local frequency and the image-frequency signal.
4. (Previously Presented) Adapter according to Claim 3, wherein the first and second very narrow filters are surface wave filters.

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5. (Previously Presented) Adapter according to Claim 4, wherein the frequency plan of the first to fifth various mixers makes it possible to obtain by simple switching of the frequencies of the harmonics generator and of the agile synthesizer and by a single change of the first and second surface wave filters, four configurations for two distinct operators compatible with a cable network.
6. (Currently Amended) Radio-frequency transmission system comprising at least one base station and at least one subscriber device, the base station using a single oscillator to perform a down conversion of signals to the frequency band transmitted by radio and possibly an up conversion of signals from the frequency band received by radio, the subscriber device comprises an interior unit and an exterior unit which are linked by a cable, wherein the exterior unit comprises a VHF adapter comprising a first down conversion chain and a second up conversion chain, wherein the first chain comprises a first mixer followed by a second mixer and the second chain a third mixer followed by a fourth and by a fifth mixer, and wherein all the local frequencies necessary for these five mixers are obtained from a very stable single reference oscillator driving a harmonics generator with a first very narrow filter and driving an agile frequency synthesizer.
7. (Currently Amended) Radio frequency transmission system according to claim 6, wherein the ~~single reference oscillator of the adapter drives a~~ harmonics generator is inserted into a phase loop dielectric resonator oscillator using an SPD system to obtain on the one hand after multiplication by two a first local frequency energizing the first and fifth mixers, and on the other hand with a first very narrow filter a second local frequency for energizing the second and the third mixers.

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8. (Currently Amended) Radio frequency transmission system according to claim 7, wherein the ~~single reference oscillator furthermore drives an~~ agile frequency synthesizer ~~is~~ controlled by a bus so as to obtain variable frequencies for energizing the fourth mixer; and wherein a second very narrow filter is placed between the output of the third mixer and an input of the fourth mixer so that, the intermediate frequency for energizing the third mixer being a very low frequency pure frequency, the signal delivered by this third mixer can be filtered by the second very narrow filter which energetically rejects the second local frequency and the image-frequency signal.

9. (Previously Presented) Radio frequency transmission system according to claim 8, wherein the frequency plan of the first to fifth various mixers makes it possible to obtain by simple switching of the frequencies of the harmonics generator and of the agile synthesizer and by a single change of the first and second surface wave filters, four configurations for two distinct operators compatible with a cable network.